

## "Young Men with Prostate Cancer Treated by Simultaneous Radiotherapy"

A. A. Sheikh, F.A. Critz, A.K. Levinson, J.B. Benton, F. Schnell, P. Shrake, L.S. Maxa. *ASCO Proceedings*, 19: 227a, 2000.

**INTRODUCTION:** Based on PSA outcomes, radical prostatectomy has become the recommended treatment method for young men with prostate cancer. This is in part because little PSA outcome data exist regarding results of radiotherapy in younger men. We reviewed our series to determine if differences existed in clinical characteristics and outcome for young men vs older men with prostate cancer.

**MATERIALS:** From January 1992 through October 1997, 1018 men with stage T1T2NO prostate cancer were treated by modern simultaneous radiation (transperineal I-125 prostate implant followed by external beam radiation). 427 (42%) were <65 years old (median 70, range 65-84). None received neoadjuvant hormonal treatment. All distributions are given for age <66 and age 65 respectively. Median followup is 36 months (range 24-84 months). Median PSA was 6.8 ng/ml versus 7.5 ng/ml ( $p=0.018$ ). PSA levels 0-10.0 ng/ml vs 10.1 ng/ml were present in 77% and 23% versus 70% and 30% ( $p=0.03$ ). Stage T1 and T2 distribution was 50% and 50% versus 38% and 62% ( $p<0.001$ ). Gleason sum 2-6 versus 7-10 was present in 83% and 15% versus 71% and 29% ( $p<0.001$ ), Chi-square, Mann-Whitney and log rank tests are used to distinguish significant differences. Disease-freedom is defined by achievement and maintenance of PSA 0.2 ng/ml, the identical definition used in most radical prostatectomy series.

**RESULTS:** 5 and 7 year disease-free was 92% for men <65 versus 88% for men 65 ( $p=0.11$ , ns). Overall disease-freedom is 89%, stratified by age, no significant difference in disease-freedom is observed for subgroups of pre-treatment PSA, Gleason score or stage. Only PSA and Gleason score are significant on multivariate analysis; age is not.

**CONCLUSION:** Younger men present with lower PSA, Gleason sum and Stage than older men and have a trend toward higher disease-free survival which is not significant. Using achievement and maintenance of undetectable PSA, the identical PSA outcome definition as most radical prostatectomy series, this report demonstrates that simultaneous radiation is an equal treatment option for young men with prostate cancer.